

Dustguard Particulate Monitor

Field / Wall Mount Model : PM - 250



Protects **Personnel, Plant
& Assets**



THE DUSTGUARD PARTICULATE MONITOR (CONTINUOUS EMISSION MONITORING SYSTEM - CEMS) PROVIDES RELIABLE & ECONOMICAL DETECTION OF LEAKS AND FILTER FALIURES IN MANY POWDER AND BULK SOLIDS INDUSTRIES

TECHNOLOGY

The Dust Guard series operate on the principle of Tribo - Electric charge transfer. The electrical charge carried by dust particles is captured by a highly sensitive Tribo - Electric probe, amplified and then transmitted to the control unit. As the current generated by the charge is proportional to the concentration of particles present, an indicative signal of dust presence results. DustGuard is most suitable for use in Low Humidity gas streams with reasonably constant flows.

The Control unit : it is mains powered, & incorporates graphic display with Adjustable alarm levels to display dust levels at which the red LED light alarm is triggered and the emissions level at which the audible and visual alarm is triggered.

Alarm Monitoring : It is most commonly employed as a real time indicator of filter bag faliure. Large LCD display gives an instantaneous read-out of the emission in the form of digital read-out. Green LED indicates normal operations, Yellow for warning and red for alarm. 'Traffic Light' display in the control unit / logger provides an easily visible alert for the operator, even if he is not closely monitoring the unit. The yellow warning light is set to operate when emission reach 75% of the level at which the red alarm is triggered, to allow early reaction (which can of course help avoid non-compliance with emission limits or catastrophic faliure).

SPECIAL FEATURES

- Quick & easy single point installation with no moving parts
- Low capital & maintenance costs
- High Sensitivity
- Can be calibrated to show emission levels in mg / m^3
- Adjustable range from 1 - 1,000 mg/m^3
- Minimum detection limit less than 1 mg/m^3

APPLICATIONS

The Dust Guard is used in most situations where the actual or potential presence of particulates creates an indicative monitoring requirement & also where higher cost of a quantative monitor is not justified.

- Filter Failure Alarms, Process Control Monitor
- Cogeneration Power plants
- Ferrous & Non Ferrous metal Processing Unit
- Cement Plants & Silos, Petrochemical, Pharma
- Boilers & Incinerators Paper Plants etc.

HNL Systems Pvt. Ltd.

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SPECIFICATIONS

Features	Real time insitu monitoring in dust, Highly sensitive one point access, Detects particles as small as 0.5 μm , no moving parts, Economical
	High sensitivity, detects particulates from 1 - 1000 mg/m^3
Detectable gases / parameters	SPM (suspended) dust
Electronics / processor	Micro-controller
Power supply	24 V DC for sensors TX, 230 V AC / 50 Hz for RC
Display	Graphic LCD on receiver controller unit
Alarm	Settable LO & HI
Output	4 - 20 mA analog for transmitter & relay, 4-20mA, RS 232 for receiver controller
Sensor technology	Tribo electric
Range resolution	0-1000 mg/m^3
Accuracy	$\pm 2\%$
Response time	Instantaneous
Operating temperature	up to 300 $^{\circ}\text{C}$ for sensor probe and 0 -55 $^{\circ}\text{C}$ for TX and RC unit
Sampling / input	Insitu
Housing / case	LM6 (EXP TX housing), SS sensor, ABS plastic for RC
Included accessories	Datalogging, RS 485 for RC, relay
Optional accessories	Industrial hooter, flasher, cable, sensor probe, purging facility, High temperature probes
Applications	Emission, particulate monitoring, dust monitoring
Industries	All ferrous metals, cement, chemical processing, fly ash, food processing, pharmaceutical, foundries, power plants

OTHER SPECIFICATIONS

Installation	
Duct diameter	25 mm to 2.2 meter
Positioning	90 degree to duct wall
Output connectors	Single flat flanged fitting
Installation	
Material of construction	SS 316
Probe length	25, 100, 250, 500, 750, 1000 mm
Insulation	PTFE (T Model - Glass ceramic)

Note : Specifications and Features will vary with application. Due to HNL's commitment to research, design and product improvement, specifications are subject to change without notice.

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